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09/410,316	10/01/1999	MARK ROBERT GIBSON	584-1013	6689

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Barnes & Thornburg
P O Box 2786
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EXAMINER

JAGANNATHAN, MELANIE

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 11/03/2003

13

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/410,316

Applicant(s)

GIBSON ET AL.

Examiner

Melanie Jagannathan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2003 and 11 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>6</u> . | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The claimed subject matter of claims **1**, **16** and **19**, in particular, the limitation of "...establishing the second path is performed at the same time as said step of establishing the first path", does not have proper antecedent basis in the specification. Applicant has pointed out pages 18-20 of the specification as disclosing claimed subject matter, however, upon review, Examiner has determined that specification discloses the path selection and session establishment as integrated but does not disclose them as occurring at the same time. Examiner appreciates appropriate correction.

Additionally, page 12 of specification recites the admission managers, connection managers and administrative server can be thought of as a management layer of the communications network and that the layer is not physically independent from the rest of the communications network. An example is described where the SIP ++ protocol control messages may be transmitted over the same physical links as the user information during communication sessions. The claimed subject matter of claims **1**, **16**, and **19** regarding a first path over management layer and second path over physical layer does not have proper antecedent basis in the specification as the specification states these first and second paths are one in the same.

Claim Objections

2. Claim 1 is objected to because of the following informalities: on line 13, "of" should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 16, 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claimed subject matter of claims 1, 16 and 19 regarding the limitation of "...establishing the second path is performed at the same time as said step of establishing the first path" is not described in the specification so as to disclose the second path over physical layer is performed at the same time as the establishing of first path over management layer. Upon review, Examiner has determined that specification discloses the path selection and session establishment as integrated but does not disclose them as occurring at the same time.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 recites the limitation "the second endpoint" in lines 4 and 6. There is insufficient antecedent basis for this limitation in the claim.

DETAILED ACTION

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1, 6, 16 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Christie U.S. Patent Number 5,991,301. Regarding claims 1, 6, 16 and 19, the claimed method of establishing a connection between two endpoints in a communications network comprising a management layer and a physical layer where the management layer is anticipated by the signaling processing system (Figure 1, element 160) for receiving and processing call signaling and the physical layer is anticipated by the ATM network (element 150) for transmitting the ATM cells containing the call information over a virtual connection and the two endpoints being the users (elements 110 and 120). The claimed physical layer comprising endpoints and a

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plurality of nodes interconnected by links is anticipated by endpoints being users (elements 110 and 120) and the ATM cross-connect (Figure 5, elements 542, 544, 546). The claimed management layer comprising a plurality of management nodes each being connected to a physical node is anticipated by the STPs (Figure 5, elements 518, 520, 522 and 524) being connected to the ATM cross-connect.

The claimed establishing of a first path over the management layer between two management nodes where each management node is connected to an endpoint is anticipated by the user sending a initial address message to STP (element 518) and this message further being sent to STP (element 520) for processing of the call and the STPs being connected to the users which are the endpoints (Figure 5, elements 510, 512, 514 and 516).

The claimed establishing of a second path between said endpoints over the physical layer, the first and second paths corresponding where the establishing of the second path is performed as an integral part of establishing the first path is anticipated by receiving the call from the user by way of the signal processing system and transmitting it to the ATM multiplexer (Figure 5, elements 130 and 140) and converting the user information into ATM cells and transmitting the cells over the selected virtual connection to another user.

Regarding claim 19, the claimed computer program stored on a computer readable medium for controlling a communications network is anticipated by the signal processing system (Figure 1, element 160).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 2-5, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christie in view of Chuah et al. U.S. Patent Number 6,408,001.

Christie discloses all the limitations of the claims except for the connection providing a specified level of quality of service for a specified communication session using that connection (as in claim 2), the connection being suitable for internet protocol traffic (as in claims 3, 17), a message protocol which involves the use of labels is used to establish second path (as in claim 4), the labels being advertised by one or more of the physical nodes (as in claim 5) and the communications network being a MPLS communication network (as in claim 18).

Regarding claim 2, the claimed connection providing a specified level of quality of service for a communication session is disclosed by Chuah where a method includes a label stack appended to the packet and one of the entries of the stack being a Class of Service field used to define a guaranteed Quality of Service between provider and subscriber. See column 7, lines 3-14. At the time the invention was made, it would have been obvious to a person of ordinary skill

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in the art to provide a guaranteed level of Quality of Service for a communication session of Christie. A person of ordinary skill in the art would be motivated to do this as it allows for proper message transmission without problems such as service interruptions or noise in the connection.

Regarding claims 3 and 17, the claimed connection being suitable for Internet protocol traffic is disclosed by Chuah where the method involves using a label switching router operable to forward IP packets and a label appended to an IP packet. See column 1, lines 45-55. Also see Figure 5, IP packets (elements 510-540). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to make the connection of Christie suitable for Internet protocol traffic. A person of ordinary skill in the art would be motivated to do this since Christie discloses the use of a packet-switched network, in particular an ATM network, as part of a call connection and an internet protocol network is another example of a packet-switched network that would be able to be used for a call connection.

Regarding claim 4, the claimed message protocol involving the use of labels is disclosed by Chuah with the use of multi-protocol label switching network. See Figure 4. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use a message protocol involving the use of labels in the system of Christie. A person of ordinary skill in the art would be motivated to do this since multi-protocol label switching addresses the areas of speed and quality of service management that improve the performance of a system.

Regarding claim 5, the claimed labels being advertised by one or more of the physical nodes are disclosed by the use of advertisement class messages by label switching routers. See Figure 4, LSR 1-8 (element 402). Also see column 5, lines 39-52. At the time the invention was

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made, it would have been obvious to a person of ordinary skill in the art to have labels being advertised. A person of ordinary skill in the art would be motivated to do this since it allows the label switching router to distribute label mapping for a packet stream to LSR peers so that each label is bound to a specific network layer route. See column 5, lines 29-47.

Regarding claim **18**, the claimed communications network being a MPLS communication network is disclosed by Chuah et al. in Figure 4. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use a MPLS communication network. A person of ordinary skill in the art would be motivated to do this as it addresses the problem of quality of service management and traffic engineering.

11. Claims **7-10,12-14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Christie in view of Fichou et al. US 6,118,791.

Christie discloses all the limitations of the claims except for a method including determining a plurality of possible first paths between endpoints, determining a measure of preference for each path and reserving bandwidth according to the measures of preference (as in claim 7), the physical layer configured to have a plurality of links of a specified capacity (as in claim 8), nodes in the physical layer connected to a link of specified capacity are arranged to advertise information about that link (as in claim 9), the information comprising the source, destination and capacity of the link (as in claim 10), issuing one or more messages from a first one of endpoints, messages comprising information about location of second endpoint, propagating each message across network to second endpoint (as in claim 12), recording information in that message about location of each node traversed by message (as in claim 13),

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for each message making a reservation of bandwidth on link emanating from node (as in claim 14).

Regarding claims 7, 14, the claimed determining of a plurality of possible first paths between endpoints, determining a measure of preference for each path and reserving bandwidth according to the measures of preference is disclosed by Fichou by nodes interconnected by paths between data sources and data destination terminals and based on network occupancy and priority of data allocating bandwidth to the paths. See column 2, lines 50-67, column 3, lines 1-12, column 4, and lines 19-47.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to determine an optimal path from a plurality of paths based on certain constraints. A person of ordinary skill in the art would be motivated to do this since it allows for increased traffic efficiency by taking into account bandwidth and traffic requirements.

Regarding claim 8, the claimed physical layer configured to have a plurality of links of a specified capacity is disclosed by Fichou with the computation of the equivalent capacity of every line on the route or path between source and destination. See column 4, lines 19-29. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have the links have a specified capacity. A person of ordinary skill in the art would be motivated to do this since it allows for increased traffic efficiency by taking into account bandwidth requirements in order to determine the optimal route.

Regarding claims 9, 10, 12, the claimed nodes in the physical layer connected to a link of specified capacity being arranged to advertise information about that link (claim 9) comprising source, destination and capacity (claim 10), issuing one or more messages from a first one of

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endpoints, messages comprising information about location of second endpoint, propagating each message across network to second endpoint (as in claim 12), recording information in message about location of each node (as in claim 13) is disclosed by Fichou by topology database updates broadcasted including an explicit rate parameter to indicate the bandwidth currently available on link. See column 3, lines 1-12, column 5, lines 29-45.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have the nodes in the physical layer connected to a link of specified capacity be arranged to advertise source, destination and capacity information about that link. A person of ordinary skill in the art would be motivated to do this since it allows the routers to determine and choose the optimal path for use for increased traffic efficiency.

12. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Christie and Fichou in view of Chuah.

Christie and Fichou disclose all the limitations except for a label by use of message protocol in order to traverse link. Chuah discloses the claimed message protocol involving the use of labels with the use of multi-protocol label switching network. See Figure 4. At the time the invention was made it would have been obvious to a person of ordinary skill in the art to use a label in the systems of Christie and Fichou. One of ordinary skill in the art would be motivated to do so for more efficient routing available through the use of MPLS.

13. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Christie and Fichou in view of Egawa et al. US 5,745,694.

Christie and Fichou disclose all the limitations of the claims except for reservations cancelled unless confirmed within a specified time period. Egawa et al. discloses expiration of

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reservation requests in order to free network resources. See column 9, lines 54-63. At the time the invention was made it would have been obvious to a person of ordinary skill in the art to modify Christie and Fichou to include canceling of reservations within a specified time period. One of ordinary skill in the art would be motivated to do so for efficient allocation of resources.

Response to Arguments

14. Applicant's arguments with respect to claims **1-19** have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues claims **1, 16** and **19** have been amended to recite the establishment of second path performed at the same time as the establishment of first path to distinguish claim limitations from prior art Christie which disclose steps carried out in series. Applicant argues the combined teachings of Christie and Chuah do not disclose path selection and session establishment processes occurring at the same time as explained on pages 18-19 of specification.

Examiner has respectfully concluded claims **1,16**, and **19** contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claimed subject matter regarding the limitation of "...establishing the second path is performed at the same time as said step of establishing the first path" is not described in the specification so as to disclose the second path over physical layer is performed at the same time as the establishing of first path over management layer. Upon review, Examiner

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has determined that the specification discloses the path selection and session establishment as integrated but does not disclose them as occurring at the same time.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rekhter et al. US 6,526,056 disclose virtual private networks employing tag-implemented egress channel selection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie Jagannathan whose telephone number is 703-305-8078.

The examiner can normally be reached on Monday-Friday from 8:00 a.m.-4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 703-308-5463. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

For Seema S. Rao
Jul Phur
FRANK DUONG

Melanie Jagannathan
Patent Examiner
AU 2666

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